

Research Note

Helminths of the Bunch Grass Lizard, *Sceloporus scalaris slevini* (Iguanidae)

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ABSTRACT: Thirty-eight *Sceloporus scalaris slevini* Smith, 1937, from Cochise County, Arizona were examined for helminths. Tetrathyridia of the cestode, *Mesocostoides* sp. Vaillant, 1863, were found in the coelom of 3 lizards. Third-stage larvae of the nematode, *Physaloptera* sp. Rudolphi, 1819, were recovered from the stomach of 1. Cestode prevalence was 8%, mean intensity 39.3; nematode prevalence was 3%, intensity 6. The finding of these helminths represents new host records.

KEY WORDS: Cestoda, *Mesocostoides* sp., Nematoda, *Physaloptera* sp., prevalence, intensity, *Sceloporus scalaris*, Iguanidae.

The bunch grass lizard, *Sceloporus scalaris*, occurs in the Huachuca, Dragoon, Santa Rita, and Chiricahua Mountains of Arizona, the Animas Mountains of New Mexico, and in the Sierra Madre Occidental and Sierra del Nido of Mexico, mostly above 1,830 m (a few isolated valley populations as low as 1,220 m) (Stebbins, 1985). To our knowledge, there have been no reports of helminth parasitism in this species. The purpose of this note is to report the results of a helminth survey of *Sceloporus scalaris slevini* Smith, 1937.

We examined 38 *Sceloporus scalaris* (mean snout–vent length 49 ± 5 mm SD, range 34–58 mm) from the Angelo State Natural History Collections, Angelo State University, San Angelo, Texas (Appendix 1). Lizards had been preserved in 10% formalin and were later stored in ethyl alcohol. Eight had been collected 13 km W of Portal, Chiricahua Mountains, 31°55'N, 109°16'W, Cochise County, Arizona (2,438 m elevation) in September 1972; 30 were from the vicinity of Rustler's Park, Chiricahua Mountains, 31°54'N, 109°16'W, Cochise County (2,560 m elevation) May–June 1973. The abdomen was opened and the esophagus, stomach, and small and large intestines were removed. Each organ was slit longitudinally and examined under a dissecting microscope. The liver and body cavity were also examined. Helminths were identified after preparation of glycerol wet mounts.

Only 3 of the 38 *S. scalaris*, all from the 1973 collection, were infected with helminths (prevalence 8%). These had 58, 52, and 8 tetrathyridia of *Mesocostoides* sp., respectively (mean intensity 39.3), within their body cavities. One lizard also had 6 third-stage *Physaloptera* sp. in its stomach (prevalence 3%). Representative helminths were deposited in the U.S. National Parasite Collection (Beltsville, Maryland 20705): *Mesocostoides* sp. (81343) and *Physaloptera* sp. (81344).

Mesocostoides is a cosmopolitan genus of cyclophyllidean cestodes for which the complete life cycle is still unknown. Its unique larval form, the tetrathyridium, is commonly found in mammalian, avian, and reptilian intermediate hosts and is readily infective to predatory definitive hosts (Schmidt, 1986). Goldberg and Bursey (1990) have reviewed the prevalences of *Mesocostoides* sp. in North American lizards. Our recovery of this parasite from *S. scalaris* represents a new host record and is the thirty-first lizard species from which it has been reported. The prevalence of 8% for tetrathyridia of *Mesocostoides* sp. is within the range of prevalences (0–27%) reported in other North American lizards.

Physaloptera is a cosmopolitan genus of spirurid nematodes occurring in reptiles, birds, and mammals; the life cycle is indirect, requiring an intermediate host (Olsen, 1974). Eggs contain first-stage larvae when laid and are passed in the host's feces. They are immediately infective to arthropod intermediate hosts. Arthropods harboring third-stage larvae are the source of infection in lizards (Olsen, 1974). Our recovery of third-stage *Physaloptera* sp. from *S. scalaris* represents a new host record.

Our finding of only immature helminths suggests a limited parasite fauna for *S. scalaris*. We have no explanation for the lack of adult helminths. Baker (1987) listed an average of 2.7 (range 1–8) adult nematodes for 14 species of

Sceloporus. This difference between *S. scalaris* and other sceloporine lizards may lie in ecological attributes. *Sceloporus scalaris* inhabits grass clumps whereas most other sceloporine lizards are geophilic. This habitat difference may be enough to eliminate the majority of insect intermediate hosts from the diet as well as remove the lizard from areas contaminated by feces. Further investigation of the helminths of this species would be appropriate.

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Literature Cited

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Appendix 1

Sceloporus scalaris examined from Angelo State Natural History Collection: 10728–10735, 11019, 11348–11351, 11358, 11360–11369, 11382, 11383, 11387, 11390, 11392–11394, 11492, 11499, 11609, 11612–11615.

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Research Note

Helminths of the Marine Toad, *Bufo marinus* (Anura: Bufonidae), from American Samoa

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ABSTRACT: The gastrointestinal tracts, lungs, livers, and urinary bladders of 97 *Bufo marinus* were examined for helminths. The nematode, *Parapharyngodon kartana*, was recovered from 1 toad (prevalence 1%). This occurrence represents a new host record. The trematode, *Mesocoelium monas*, was also recovered; prevalence 100% (mean intensity 101) from *B. marinus* collected on Tutuila Island and prevalence 80% (mean intensity 19) for toads from Aunu'u Island. This finding extends the range of *M. monas* to the Pacific Islands.

KEY WORDS: Trematoda, *Mesocoelium monas*, Nematoda, *Parapharyngodon kartana*, Bufonidae, *Bufo marinus*, prevalence, intensity, American Samoa.

The marine toad, *Bufo marinus* (Linnaeus, 1758), originally ranged from southern Texas to central Brazil (Zug and Zug, 1979), but was introduced to many areas including the Caribbean Islands, Pacific Islands, and Australia (Easteal,

1981). It was introduced into Tutuila Island, American Samoa, from Hawaii in 1953 to control insects and later to Aunu'u Island. The population on Tutuila Island was estimated to be 2,296,000 in 1976 by Amerson et al. (1982). To our knowledge, the helminth fauna of *B. marinus* from American Samoa has not been investigated. The purpose of this report is to present findings of an examination of *B. marinus* from American Samoa for helminths.

Ninety-seven *B. marinus* were examined. Eighteen (mean snout–vent length [SVL] 89.5 mm, range 53–127 mm) were collected April–May 1989 from Tutuila Island, American Samoa (14°17'S, 170°41'W); 23 (mean SVL 91.7 mm, range 75–122 mm) were collected January 1990 also from Tutuila Island. Fifty-six (mean